

Amendments to the Specification

Please amend paragraph [0046] at pages 16-18 of the specification as follows:

Programmable difference thresholds can also be used to create difference bands where different values of f can be selected for use. For instance, if two thresholds ($th1$ and $th2$) are employed, then three bands are created where three different f values ($f1$, $f2$ and $f3$) can be used. A first band would be for all difference values ($P1-P2$) that fall between 0 and $th1$. If the difference falls within this range, $f1$ is used for the filtered value calculation in equation (1). A second band is between $th1$ and $th2$, where $f2$ would be used, and a third band that uses $f3$ comprises the range of $th2$ to some maximum value. All values of $th1$, $th2$, $f1$, $f2$, $f3$, etc. are programmable, for example, by the user on a picture boundary. With two sets of registers to hold these values at the user interface, one set could be used to process the current input picture while the user could prepare and change the second set, which could be automatically used in the following input picture if desired.

Example:

$th1=7$

$th2=15$

$f1=.75$

$f2=.50$

$f3=.25$

If $P1=20$ and $P2=16$:

$P1-P2=4$, $f=f1=.75$ since $4 < th1$

Therefore, the new pixel value = $.75(20) + .25(16) = 15 + 4 = 19$.

If $P1=20$ and $P2=[12]$ 16:

$P1-P2=8$, $f=f2=.50$ since $th1 < 8 < th2$

Therefore, the new pixel value = $.50(20) + .50(16) = 10 + 8 = 18$.

If $P1=20$ and $P2=4$:

$P1-P2=16$, $f=f3=.25$ since $16 > th2$

Therefore, the new pixel value = $.25(20) + .75(4) = 5 + 3 = 8$.